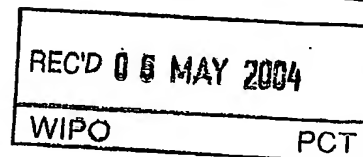
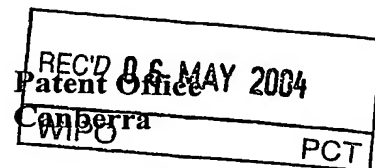
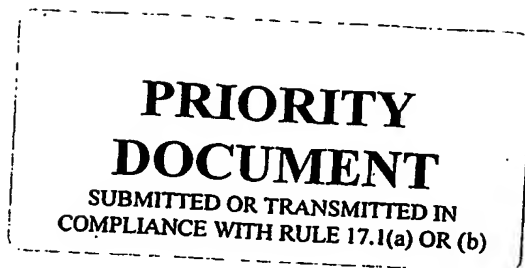




Australian Government

PCT/AU2004/000502



I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003901819 for a patent by GODDARD CORPORATION PTY LTD as filed on 16 April 2003.

I further certify that the above application is now proceeding in the name of EARL FENTON GODDARD pursuant to the provisions of Section 113 of the Patents Act 1990.



WITNESS my hand this
Twenty-ninth day of April 2004

LEANNE MYNOTT
MANAGER EXAMINATION SUPPORT
AND SALES

BEST AVAILABLE COPY

Our Ref: P2003901819:MLT:SR
CCID: 4510000537

July 17, 2003

TO: THE COMMISSIONER OF PATENTS

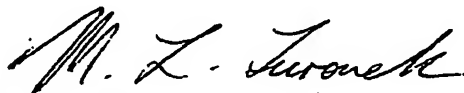
Sir

RE: Recordal of Assignment

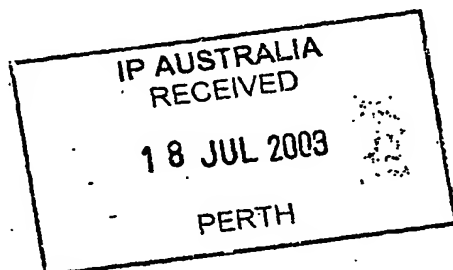
**IN THE MATTER OF: Australian Provisional Patent Application Number
2003901819 in the name of Earl Fenton Goddard -
"A Parts Washer"**

We file herewith a Transfer of Interest in an Application under Section 113 of the Patents Act so that the applicant may be recorded as Earl Fenton Goddard.

Yours faithfully
for LORD & COMPANY



DR MARY L. TURONEK
enc.



LORD AND COMPANY PATENT AND TRADE MARKS ATTORNEYS
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ASSOCIATES: *Mary L. Turonek B.Sc. (Hons), Ph.D., M.R.A.C.I. E.I.P.T.A. *Neal J. Holliday B.Sc., B.Eng (Hons), Dip.IPP (IPTA)

TECHNICAL ASSISTANTS: *Barry S. Newman B.Sc., B.Eng (Hons), GradIEAust Carol L. Kane B.Sc. (Hons) *Trade Marks Attorney

BANKERS: Commonwealth Bank of Australia, West Perth 6005 Western Australia

· AUSTRALIA

PATENTS ACT 1990

TRANSFER OF INTEREST IN AN APPLICATION

Request for Direction of the Commissioner

I, Earl Fenton Goddard of, 85A Gardener Street, Como, Western Australia, hereby request the Commissioner to direct that Application Number 2003901819 in the name of Goddard Corporation is to proceed in the name of Earl Fenton Goddard.

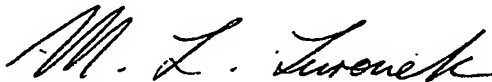
I am entitled to make this request by virtue of an assignment dated July 16, 2003.

I furnish with this application the following documents:-

Certified copy of the Deed of Assignment

My address for service is care of LORD & COMPANY, Patent and Trade Mark Attorneys, 4 Douro Place, West Perth, Western Australia, 6005, AUSTRALIA.

DATED THIS 17TH DAY OF JULY 2003 . .



Earl Fenton Goddard
By his Patent Attorneys
LORD & COMPANY
PERTH, WESTERN AUSTRALIA.

WE CERTIFY THAT THIS AND THE
FOLLOWING ~~ONE~~ PAGES ARE A
TRUE AND CORRECT COPY OF
THE ORIGINAL SPECIFICATION
LORD & COMPANY

ASSIGNMENT having effect as of this *16* day of *July* Two Thousand and three
BETWEEN Goddard Corporation Pty Ltd, an Australian company of Broadway
House, 79 Broadway, Nedlands, Western Australia, AUSTRALIA, (hereinafter called
the "Assignor") of the one part AND Earl Fenton Goddard of, 85A Gardner Street,
Como, Western Australia, AUSTRALIA, (hereinafter called the "Assignee") of the
other part WHEREAS the Assignor has made an invention entitled "A Parts Washer"
(hereinafter called "the Invention") for which a Provisional Patent Application in
Australia allocated Application No. 2003901819 was lodged on April 16, 2003 AND
WHEREAS the Assignor has agreed to transfer to the Assignee his entire right, title
and interest in and to the Invention and to any Letters Patent or similar privileges
obtained thereon and the right to lodge foreign applications for Letters Patent in
respect of the Invention and to claim Convention Priority from Australian Provisional
Patent Application No. 2003901819 NOW THIS ASSIGNMENT WITNESSETH that
the assignor for and in consideration of the sum of one dollar (\$1.00) Australian
Currency (the receipt of which is hereby acknowledged by the assignor) DOTH
HEREBY assign transfer and set over unto the Assignee his entire right, title and
interest in and to the Invention, applications for Letters Patent, any Letters Patent, or
similar privileges granted thereon, and the right to lodge Patent applications in
countries other than Australia and claiming the priority of the said Australian
Provisional Patent Application together with all the profit benefit and advantage
therefrom arising or in any way appertaining thereto TO HOLD the same unto the
Assignee absolutely, and agrees that he will communicate to the Assignee or its
representatives any facts known to him respecting the Invention and testify in any
legal proceedings, sign all lawful papers, execute all divisional, continuation,
substitution, renewal and reissue applications, execute all necessary assignment
papers to cause any and all of said Letters Patent to be issued to the Assignee, make
all rightful oaths and generally do everything possible to aid the Assignee, its
successors and assigns to obtain and enforce protection for the Invention but all at the

expense of the Assignee; and it is further agreed that this assignment shall be effective as of the day first hereinbefore written.

SIGNED AND DELIVERED on behalf of

GODDARD CORPORATION PTY LTD

by
(Authorised Person)

Position in company



Director

in the presence of:

Witness (print name)

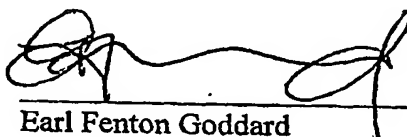
Date



J. Hurst

16 / July / 20 03

SIGNED AND DELIVERED by


Earl Fenton Goddard

in the presence of:

Witness (print name)

Date



J. Hurst

16 / July / 20 03

Request to Record an Assignment

Application/Patent No. 2003901819

Applicant(s)/Patentee(s) (old): Goddard Corporation Pty Ltd

Request/Letter filed: 18-7-03 Ref: P2003901819:MLT:SR

Evidence Filed:

Assignment

Dated 16-7-03

Whole

Part

Applicant(s)/Patentee(s) (new): Eurl Fenton Goddard
85A Gardener Street
Como WA 6152

Allowed/Registered

R Weir
ERA EOperator (Delegation)

27/8/03
Date

APPLICANT: GODDARD CORPORATION PTY LTD

NUMBER:

FILED:

AUSTRALIA

THE PATENTS ACT 1990

PROVISIONAL SPECIFICATION FOR THE INVENTION ENTITLED
"A PARTS WASHER"

The present invention will be described in the following statement:

TITLE
"A PARTS WASHER"

The present invention relates to a parts washer.

5 Various industries, such as the automotive industry, require a method of cleaning mechanical components which are subject to a build up of dirt, grease and oil. It is known to provide a parts washer in which the components may be placed to be cleaned. Such washers generally include a cleaning chamber into which the parts are placed and a fluid reservoir in which is stored cleaning fluid. A pump is provided to
10 pump the cleaning fluid from the reservoir into the cleaning chamber via jets within the chamber to clean the parts. The cleaning fluid is then returned to the fluid reservoir.

The effectiveness of the parts washer is determined, at least partly, by the pressure of the cleaning fluid from the jets within the chamber. In order to provide higher
15 pressure jets within the chamber, it is necessary to either increase the pressure provided by the pump or to decrease the number of jets. Both of these methods however have limitations. Providing higher pressure from the pump may require changing the pump itself and associated piping, leading to increased costs. Reducing the number of jets is also often not practical as this reduces the area within the parts
20 washer impacted by the jets. An alternative method of increasing the pressure is by decreasing the size of the jets. This, however, can lead to increased likelihood of the jets blocking up.

A method of effectively increasing the pressure of fluid from the jets however would have the advantage of allowing lower strength cleaning agents to be used and/or lower
25 temperatures in the parts washer. This would allow more environmentally friendly

cleaning agents to be used and allow more efficient recycling and disposal of the waste water.

The present invention attempts to overcome at least in part the aforementioned disadvantages of previous parts washers.

- 5 In accordance with one aspect of the present invention there is provided a parts washer comprising:
- a cleaning chamber;
 - a receptacle into which parts to be cleaned are placed, the receptacle being rotatably mounted within the cleaning chamber;
 - 10 a drive means arranged to rotate the receptacle; and
 - one or more spray manifolds, the or each spray manifold having a plurality of spray jets arranged to spray cleaning fluid onto the parts in the receptacle;
 - wherein the or each spray manifold is moveably mounted within the cleaning chamber and is coupled to the drive means such that the drive means causes
 - 15 reciprocating motion of the or each spray manifold.

The present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a part washer in accordance with the present invention; and

- 20 Figure 2 is a perspective view of the parts washer of Figure 1 with a portion of the cabinet cut away.

Referring to the Figures, there is shown a parts washer 10 comprising a cabinet 12 having a lid 14 defining a cleaning chamber 16 within the cabinet 12 when the lid 14 is closed.

The parts washer 10 includes a receptacle 18 rotatably mounted within the cleaning chamber 16. The receptacle comprises a circular basket 20 mounted on a central drive shaft 22. In use, parts which are to be washed by the parts washer 10 are placed within the basket 20.

- 5 The parts washer 10 includes a plurality of spray manifolds 24 having spray jets 26 thereon. In the embodiment shown in the drawings, the parts washer 10 includes a vertical spray manifold 28 and first and second horizontal spray manifolds 30 and 32. The vertical spray manifold 28 is arranged adjacent a side of the basket 20 with the spray jets 26 arranged to spray cleaning fluid in a generally horizontal direction
- 10 towards the basket 20. The first horizontal spray manifold 30 is located above the basket 20 with the spray jets 26 arranged to spray cleaning fluid generally vertically downward towards the basket 20. The second horizontal spray manifold 32 is located below the basket 20 with the spray jets 26 arranged to spray cleaning fluid generally vertically upward towards the basket 20.
- 15 The first and second horizontal spray manifolds 30 and 32 comprise generally L-shaped pipes joined by an interconnecting manifold 36 arranged to extend alongside the basket 20 generally vertically between first ends 38 of the first and second horizontal spray manifolds 30 and 32. Further, the first and second horizontal spray manifolds 30 and 32 and the vertical spray manifold 28 are supplied with pressurised
- 20 cleaning fluid via hoses 31 by a pump (not shown). The pump recirculates cleaning fluid which collects in the bottom of the cleaning chamber 16 back through the spray manifolds 24.
- The parts washer 10 is also provided with a drive means comprising a drive motor (not shown) connected to a drive wheel 40. The drive wheel 40 comprises a

preferably rubberised wheel positioned adjacent the basket 20 so as to engage the periphery of the basket 20 such that when the drive wheel 40 is driven by the drive motor, the basket 20 is rotated about the drive shaft 22 by the engagement with the drive wheel 40.

5 The drive wheel 40 is provided with a cam rod 42 connected to a point on the drive wheel offset from the axis of rotation of the drive wheel 40. Also provided is a vertical shaft 46 rotatably mounted to extend upwardly from a base 50 of the cabinet 12. The vertical shaft 46 includes a lug member 44 secured thereto such that the lug member 44 extends generally horizontally outward from the vertical shaft 46. The
10 cam rod 42 is secured to a distal end of the lug member 44 such that rotation of the drive wheel 40 causes horizontal reciprocating motion of the lug member 44 about the vertical shaft 46.

The interconnecting manifold 36 of the parts washer 10 is secured to the vertical shaft 46 by any suitable means such as welding. Therefore the reciprocating rotational
15 motion of the vertical shaft 46 causes reciprocating rotational motion of the interconnecting manifold 36, thereby causing the first and second horizontal spray manifolds 30 and 32 to undergo reciprocating horizontal motion.

The vertical spray manifold 24 is mounted relative to a side wall of the cabinet 12 by first and second upper elongate members 50 and 52 and lower elongate member 54.

20 The first and second upper elongate members 50 and 52 are mounted at first ends thereof to opposing ends of a horizontally mounted rod 56. The rod 56 is rotatably mounted to the side wall of the cabinet 12 by first and second brackets 58 and 60. The lower elongate member 54 is pivotally mounted at a first end thereof to a third bracket 62. Second ends of the first and second elongate members 50 and 52 are pivotally

mounted to a first tab 64 secured to the vertical spray manifold 24 and a second end of the third elongate member 54 is pivotally mounted to a second tab 66 secured to the vertical spray manifold 24 below the first tab 64.

The first elongate member 50 also includes a downwardly extending portion 68 adjacent the first end thereof. A connecting member 70 is also provided connecting a distal end of the downwardly extending portion 68 to the lug member 44. The horizontal reciprocating motion of the lug member 44 thereof causes the first and second elongate members 50 and 52 to undergo vertical reciprocating pivotal movement, along with the third elongate member 54 by virtue of the connection to the vertical spray manifold 28. The vertical spray manifold 28 therefore undergoes vertical reciprocating motion.

In use, the parts to be cleaned are placed within the basket 20 of the parts washer 10 and the lid 14 is closed. The drive motor is activated to turn the drive wheel 40, which in turn rotates the basket 20. The pump is also activated to supply cleaning fluid to the first and second horizontal spray manifolds 30 and 32 and the vertical spray manifold 28. The rotation of the drive wheel 40 causes horizontal reciprocating motion of the first and second horizontal spray manifolds 30 and 32 and vertical reciprocating motion of the vertical spray manifold 28. The movement of the spray manifolds 24 allows all of the areas of the basket 20 to be impacted by the cleaning fluid during rotation of the basket 20 with the use of fewer spray jets 26 with larger diameter. This therefore allows more effective cleaning of the parts within the parts washer 10 and gives the possibility of using lower strength cleaning agents and/or lower temperatures. It also reduces the incidence of blockages in the jets.

The ratio of drive wheel size to basket size, or other means may be used to modify the spray pattern generated over the basket 20. For example, the arrangement may be such that after a predetermined number of rotations of the basket 20, all areas of the basket have been sprayed and the pattern then repeats. Alternatively, a non-repeating
5 pattern may be used.

Modifications and variations as would be apparent to a skilled addressee are deemed to be within the scope of the present invention

DATED THIS 16TH DAY OF APRIL 2003.

10

GODDARD CORPORATION PTY LD
By their Patent Attorneys
LORD & COMPANY
15 **PERTH, WESTERN AUSTRALIA.**

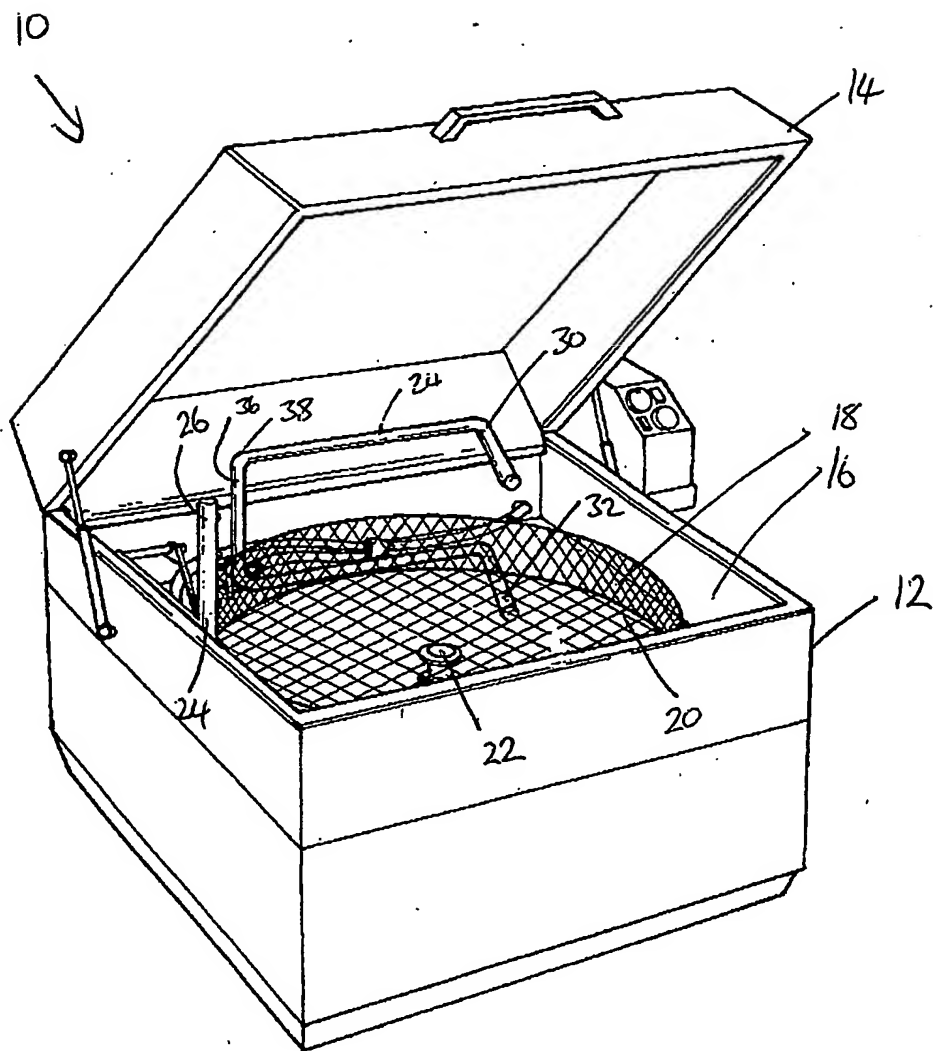


Fig 1

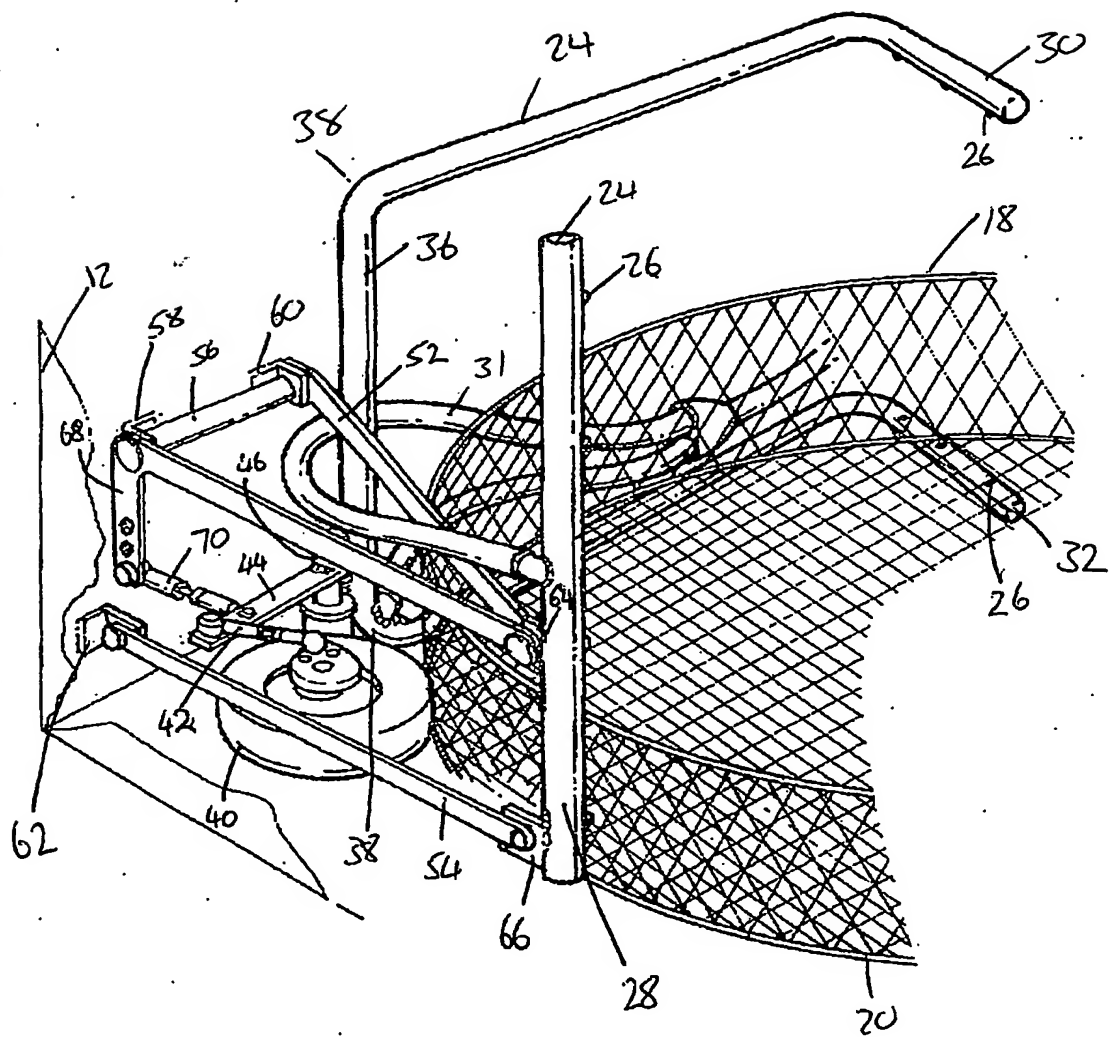


Fig. 2.

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